

Bridging the Gap: Primary Health Care and Chronic Illness Management Among Slum Dwellers in Bangladesh — A Review and Care Management Framework



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Abstract

Chronic illness among slum-dwelling populations tends to be discussed in fairly general terms, which is part of the problem — the specifics matter, and they've often gone missing from the conversation. This review looks at how primary health care systems in Bangladesh engage, or more often fail to fully engage, with chronic and contagious illness among adults living in urban slum settlements, drawing together ten studies alongside the cross-sectional survey evidence as its empirical anchor. Methodologically, the review synthesizes findings narratively rather than systematically, combining structured literature searches with a detailed re-examination of the underlying two-site survey (Dhaka and Tongi), which sampled working-age adults through community health worker clusters and household-level data collection. Results point to a meaningful chronic illness burden — roughly one in five adults across both sites — unevenly translated into care-seeking behavior; conditions like hypertension and diabetes prompted formal engagement more consistently than chronic musculoskeletal pain, and care was sought across a genuinely mixed landscape of government facilities, private clinics, pharmacies, and informal or NGO providers, shaped less by preference than by proximity,

cost, and time. Building on these patterns, alongside international evidence on community engagement, peer-led self-management, and health system coordination, the paper proposes a patient care management framework centered on centralized data infrastructure, provider communication, and stronger integration of informal care sources rather than their displacement. The conclusion, tentatively but not without confidence, is that meaningful reform depends less on adding new formal infrastructure and more on coordinating what already exists.

Keywords

primary health care; chronic illness; slum dwellers; Bangladesh; care management framework

1. Introduction

Walk through any of Dhaka's older slum clusters at dusk and you'll see it plainly: pharmacies doing brisk business, informal drug sellers doling out tablets by the strip, and a steady trickle of people ducking into whatever clinic happens to be nearby and open. What you won't see, most of the time, is a doctor. This isn't a failure of

Significance | Offers a grounded, context-sensitive care management framework addressing chronic illness gaps among Bangladesh's slum populations, informing more equitable primary health care policy.

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Editor Md Golam Rabiul Alam, Ph.D. And accepted by the Editorial Board Sep 23, 2020 (received for review Jul 27, 2020)

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Please cite this article as: Mithu, K. (2020). "Bridging the Gap: Primary Health Care and Chronic Illness Management Among Slum Dwellers in Bangladesh — A Review and Care Management Framework", Data Modeling, 1(1), 1-11, 10860

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individual choice so much as a structural one — and it's the starting point for this paper.

Primary health care (PHC) is often described, almost reflexively, as the backbone of a functioning health system. That description holds up reasonably well in theory. In practice, especially across much of Bangladesh, the backbone has gaps you could drive a rickshaw through. Some of these gaps trace back to the country's epidemiological transition — the messy, uneven shift from infectious to chronic disease burden — while others stem from disease outbreaks, periods of instability, and governance shortfalls that have accumulated over years rather than emerged all at once (Dodd et al., 2019). There is reasonably good evidence, too, that where communities are genuinely engaged and mobilized around health service delivery, outcomes tend to improve (Dodd et al., 2019). That finding matters a great deal for slum settings, where trust in formal institutions is often thin and where community-level relationships frequently do more work than official channels.

So what does this paper actually try to do? Three things, roughly in sequence. First, it pulls together existing literature on PHC systems as they relate to chronic and contagious illness care — not exhaustively, but with enough breadth to establish a pattern. Second, it narrows in on the particular difficulties facing slum-dwelling populations in Bangladesh, a group whose health needs are frequently mentioned in passing but rarely examined with the specificity they deserve. Third, building on both of those threads, it proposes a patient care management model meant to address at least some of the gaps identified along the way.

Ten studies inform the analysis that follows, and it's worth sketching the shape of that literature before diving into any one of them, because the diversity itself is instructive. Dodd et al. examined PHC systems across low- and middle-income countries in the Asia-Pacific region and, after that comparison, converged on five priorities for strengthening service delivery: building up the non-physician workforce, folding non-communicable disease prevention into basic care packages, developing managerial capacity, institutionalizing — not just encouraging — community engagement, and modernizing information systems (Dodd et al., 2019). None of these are glamorous fixes. They're the unglamorous, infrastructural kind of change that rarely makes headlines but tends to matter more than the headline-grabbing kind.

Elsewhere in the literature, the picture gets more granular, sometimes uncomfortably so. Hjern and colleagues, looking at health examinations for child migrants across Europe, found the practice to be inconsistent at best — some countries running PPD testing, others fecal occult blood testing, still others cholesterol screening, with little coherence across the set (Hjern et al., 2019). It's a fair question, and one the authors raise directly, whether these procedures amount to genuine health assessment or something closer to a screening exercise performed for its own sake (Hjern et al., 2019). That distinction — assessment versus performance — echoes uncomfortably well when you think about how chronic illness screening sometimes functions in resource-constrained urban settings.

On the intervention side, Russell et al. described IMPACT, a five-year program built across Australia and Canada on a network of Local Innovation Partnerships, bringing decision-makers, researchers, clinicians, and members of vulnerable communities into the same room to work on access problems together (Russell et al., 2019). Baum et al., working from a five-year longitudinal realist case study in South Australia, drew out the distinction between comprehensive and selective primary health care — a distinction with real bite given the Sustainable Development Goals framing so much current health policy discourse (Baum et al., 2017). Satherley et al. took a mixed-methods approach, grounded in the RE-AIM framework, to evaluate the Children and Young People's Health Partnership Evelina London Model of Care, offering a template for how integrated pediatric care programs might scale (Satherley et al., 2019). Saif-Ur-Rahman and colleagues went a different route entirely, proposing an evidence gap map protocol — modeled on the methodology of the International Initiative for Impact Evaluation — specifically to surface where primary health care policy and governance research is thin across low- and middle-income countries (Saif-Ur-Rahman et al., 2019).

Not everything here is squarely about PHC delivery mechanics, and that's deliberate. Greer's analysis of European Union health services policy treats the field as a "critical juncture," arguing that rulings from the European Court of Justice have, over time, produced a fragmented landscape of competing models and bureaucratic sponsors rather than one coherent system (Greer, 2008). It's a reminder that fragmentation isn't unique to low-

income settings — it just tends to look different, and get less attention, in wealthier ones. Squire et al. described the UK's Expert Patients Programme, a formalized peer-led support model for people managing long-term conditions (Squire et al., 2006), an approach whose intellectual roots go back to Stanford, where Lorig and colleagues first tested lay-led self-management support among arthritis patients (Lorig et al., 1986). That early work was later generalized into the Chronic Disease Self-Management Course, which — somewhat surprisingly, given how much weight is typically placed on professional-led care — produced outcomes comparable to programs run by health professionals (Lorig et al., 1999). Gemaque and colleagues, working in a very different register, examined oral lesions among hospitalized infectious-disease patients in northern Brazil and found tuberculosis and HIV to be the most prevalent underlying conditions, with oral candidiasis and periodontal disease serving as visible markers of immunosuppression — a finding that argues, fairly persuasively, for folding dental care into infectious disease management rather than treating it as a separate concern (Gemaque et al., 2014).

The empirical anchor for this review, though, is Adams et al.'s cross-sectional study of healthcare-seeking behavior among adult slum dwellers in two Bangladeshi urban settings. What that study found — and what shapes much of the analysis that follows — is that slum populations are far less homogeneous, socioeconomically, than they're often assumed to be, and that people seek care in whatever form happens to be accessible given the constraints they face: proximity, time, perceived effectiveness, and cost (Adams et al., 2020). That's a modest-sounding finding on its face, but it carries real implications for how care management frameworks ought to be designed — not around an idealized patient with unconstrained choice, but around the actual, constrained decisions people are making every day. The remainder of this paper builds outward from that premise.

2. Methods

2.1 Study Design and Rationale

This paper takes the form of a narrative literature review, built around a single empirical study — the cross-sectional survey conducted by Adams et al. (2020) on healthcare-seeking behavior among adult slum dwellers in Bangladesh — supplemented by a targeted set of

comparator studies drawn from the international primary health care literature. A narrative rather than systematic approach was chosen deliberately: the aim here is not to exhaustively catalogue every study on PHC and chronic illness, but to synthesize a purposively selected body of evidence sufficient to support the development of a care management framework. That said, the search and selection process below is reported with enough detail that another reviewer, working from the same starting points, should be able to reconstruct a comparable evidence set.

2.2 Information Sources and Search Strategy

Relevant literature was identified through structured searches of PubMed/MEDLINE, along with cross-referencing of citation lists in the retrieved articles (a snowballing approach). Search terms combined controlled vocabulary and free-text keywords across four conceptual domains: (1) primary health care organization and delivery — e.g., "primary health care," "primary care systems," "health service delivery"; (2) population of interest — "slum," "urban poor," "informal settlement," "vulnerable populations," "migrants"; (3) chronic and contagious illness — "chronic disease," "non-communicable disease," "chronic illness management," "infectious disease"; and (4) geographic and health-system context — "Bangladesh," "low- and middle-income countries," "Asia-Pacific," "health system strengthening." Boolean operators (AND/OR) were used to combine terms within and across domains, and searches were limited to articles published in English.

2.3 Eligibility Criteria

Studies were considered eligible if they met the following criteria: (a) addressed primary health care delivery, organization, or policy in relation to chronic or contagious illness; (b) focused on, or offered generalizable insight relevant to, low- and middle-income country contexts, slum or urban-poor populations, or comparable vulnerable groups; (c) were published in a peer-reviewed journal; and (d) reported empirical findings, a study protocol, or a substantive policy/conceptual analysis rather than an unreferenced opinion piece. No restriction was placed on study design — cross-sectional surveys, longitudinal case studies, mixed-methods evaluations, and protocol papers were all considered, given that the review's purpose was synthesis across a range of methodological approaches rather than pooled quantitative estimation. Studies were excluded if they addressed primary health care in a strictly

high-resource, non-comparable context without clear relevance to the low-resource, urban-poor setting central to this paper.

2.4 Study Selection

Ten studies met the eligibility criteria and were retained for synthesis, spanning primary health care systems research in the Asia-Pacific region (Dodd et al., 2019), child migrant health screening in Europe (Hjern et al., 2019), access-to-care interventions in Australia and Canada (Russell et al., 2019), comprehensive versus selective PHC models in Australia (Baum et al., 2017), integrated pediatric care evaluation in the United Kingdom (Satherley et al., 2019), evidence gap mapping methodology for LMIC health policy (Saif-Ur-Rahman et al., 2019), European health services policy analysis (Greer, 2008), peer-led chronic disease self-management (Squire et al., 2006; Lorig et al., 1986, 1999), oral health comorbidities in infectious disease patients (Gemaque et al., 2014), and the anchoring Bangladeshi slum health-seeking study (Adams et al., 2020). One reviewer conducted screening and selection; given the narrative-synthesis design and modest final sample, dual independent screening was not performed, which is acknowledged as a methodological limitation below.

2.5 Primary Data Source: Design and Sampling

Because the Adams et al. study forms the empirical core of this review, its methodology is described here in enough detail to support independent evaluation and, where possible, replication of its analytic logic. The underlying survey was conducted between 2013 and 2014 across two urban sites in Bangladesh selected specifically for their contrasting health profiles: Dhaka City Corporation, where the population is engaged predominantly in day labor and small-scale trading, and Tongi, a township within Gazipur City Corporation situated near the ready-made garment and pharmaceutical export processing zone (Adams et al., 2020).

Sampling followed a two-stage cluster design. Community health workers had already organized each site into geographic program zones, with individual workers responsible for roughly 200 households apiece — these household groupings served as the primary sampling clusters. In Dhaka, 30 of 189 available clusters were randomly selected (10 clusters per zone); in Tongi, 34 of 330 clusters were selected using the same randomization logic. Within each selected cluster, research teams

conducted a household census, recording the age, sex, and recent acute or chronic illness history of every household member. From this census, a sampling frame for chronic disease analysis was constructed, stratified by age and sex, and the analytic sample was restricted to household members aged 15–64 years who reported a chronic illness lasting three months or longer.

2.6 Data Collection Instruments and Procedures

The survey instrument was designed for comparability with two existing national data collection efforts — the Bangladesh Urban Health Survey and the Household Income and Expenditure Survey — allowing health-seeking behavior items to be interpreted alongside established benchmarks. Instruments were administered in Bangla by four field teams, each composed of eight trained research assistants working under a supervisor with prior survey fieldwork experience. Prior to data collection, all field staff completed a seven-day training program, followed by a two-day pilot test administered to ten respondents in a Dhaka slum setting; this pilot served to refine question wording and to surface practical problems — skipped items, erasures, and points of respondent confusion — before full-scale fieldwork began.

The finalized instrument was administered via tablet computer in respondents' homes, with field supervisors monitoring interviews in real time and reviewing completed entries for internal consistency. Data were transmitted to a central server and underwent review by a dedicated data management team prior to any analysis. Variables collected included respondent age, sex, occupation, and educational attainment, alongside self-reported chronic illness symptoms and severity.

2.7 Variables and Case Definition

Chronic illness, for purposes of this review, was operationalized as a self-reported condition persisting for three months or longer — a threshold chosen partly because biomedical confirmation of diagnosis is often unavailable or prohibitively costly in slum settings, and partly because longer-duration illness tends to be recalled with greater accuracy than acute, short-lived symptoms. The review's synthesis focuses on four broad chronic and contagious disease categories: cardiovascular disease, cancer, chronic respiratory disease, and diabetes, though the underlying dataset also captures musculoskeletal pain, gastric and digestive illness, and long-term febrile or infectious symptoms — conditions that, while less clinically

dramatic, appear with notable frequency among this population.

2.8 Data Synthesis Approach

Given the narrative design, no formal meta-analytic pooling was undertaken. Instead, findings from the ten included studies were synthesized thematically, organized around recurring priority areas identified across the literature — workforce development, information systems, community engagement, and managerial capacity — and then mapped against the specific empirical patterns reported for Bangladeshi slum populations. This thematic mapping directly informed the structure of the care management framework proposed in later sections of the paper.

2.9 Limitations of the Methodological Approach

A few limitations are worth flagging up front, in the interest of transparency. Single-reviewer study selection introduces some risk of selection bias, unmitigated by the double-screening process a fully systematic review would employ. Reliance on self-reported illness data, even with the three-month duration threshold intended to reduce recall bias, cannot fully eliminate the possibility of misclassification, particularly for slum-dwelling respondents whose conditions frequently go undiagnosed by a qualified medical professional. And because the underlying survey captured care received at the respondent's most recent visit rather than their very first point of contact, information about initial provider choice — which may have occurred years prior to the survey — is not recoverable from this dataset, a tradeoff that was accepted in exchange for reduced long-range recall bias.

3. Results

3.1 Sample Characteristics Across the Two Study Sites

Table 1 lays out the sociodemographic picture for working-age adults (15–64 years) across the two study sites, and honestly, the first thing that stands out is how similar — not identical, but similar — Dhaka and Tongi turn out to be, despite being chosen precisely because they were expected to contrast (Table 1). Women made up a slight majority of respondents in both locations (54.2% in Dhaka, 51.8% in Tongi), and roughly three in ten adults fell into the 45–64 age band (31.6% and 27.4%, respectively) (Table 1). Formal education was the exception rather than the rule for a large share of this population — close to two

in five Dhaka respondents and just over a third of Tongi respondents reported no formal schooling at all (38.9% versus 35.1%) (Table 1). Day labor and informal trading, unsurprisingly given the economic character of both sites, accounted for nearly half of all occupational reports, slightly more so in Tongi than Dhaka (52.3% versus 46.5%) (Table 1). Household size hovered around four to five persons in both settings (4.6 in Dhaka, 4.3 in Tongi) (Table 1) — modest, but not dramatically different from national urban averages, which is worth noting given how often slum households are assumed, sometimes without much evidence, to be unusually large or crowded.

What might be the more consequential figure here, though, is chronic illness prevalence itself: 22.7% of Dhaka respondents and 19.4% of Tongi respondents reported a chronic condition lasting three months or longer (Table 1). That's a substantial fraction of the adult population — roughly one in five — carrying a long-term health burden in settings where, as later sections of this paper discuss, formal diagnostic confirmation is often simply out of reach. This finding echoes what Adams et al. (2020) emphasized in their original analysis: slum populations are not the socioeconomically uniform group they're sometimes assumed to be, and chronic illness burden, layered on top of that heterogeneity, complicates the picture further still.

3.2 Patterns of Chronic and Contagious Illness

Table 2 breaks the chronic illness picture down by condition type, and here the numbers get a bit more interesting — partly because prevalence and care-seeking don't always move together the way you might expect. Musculoskeletal pain was, by a fair margin, the most commonly reported condition, affecting 28.4% of respondents with chronic illness, yet only 61.2% of those affected sought any form of care for it (Table 2). Compare that to hypertension and cardiovascular disease — reported by a smaller share of respondents (19.6%) but pursued through care-seeking at a considerably higher rate (74.5%) (Table 2). Diabetes followed a similar pattern: lower prevalence (12.1%) paired with relatively high care-seeking (70.3%) (Table 2).

Why would that be? One plausible explanation, though the underlying data can't confirm it definitively, is that conditions like hypertension and diabetes tend to be framed — by patients, by community health workers, by whoever happens to be dispensing informal medical

advice — as identifiably serious, even dangerous, in a way that chronic musculoskeletal pain simply isn't. Pain of that kind gets normalized, almost folded into the background texture of manual labor and daily life, and so it's tolerated rather than treated. Chronic respiratory disease (14.8% prevalence, 58.9% care-seeking) and gastric or digestive illness (17.5% prevalence, 55.6% care-seeking) followed a broadly comparable pattern — moderately high prevalence, but noticeably lower rates of engagement with any care provider (Table 2). Long-term fever and other infectious symptoms, meanwhile, were the least commonly reported condition (7.6%) yet still prompted care-seeking in almost two-thirds of cases (63.0%) (Table 2) — perhaps because persistent fever, unlike chronic joint pain, reads as acute and alarming even when it has dragged on for months.

Taken together, these figures suggest something that's easy to state simply but harder to act on: care-seeking in this population isn't driven by prevalence alone, or even primarily by prevalence. It's driven by some combination of perceived severity, symptom visibility, and — as the following section makes clear — where, exactly, people are able to go for help in the first place.

3.3 Sources of Healthcare-Seeking Behavior

Figure 3 illustrates the distribution of care sources reported by adult slum dwellers managing chronic illness, disaggregated by facility type — government facilities, private clinics, pharmacies or drug sellers, and NGO or informal providers (Figure 3). Consistent with the broader thrust of Adams et al.'s (2020) original findings, respondents did not gravitate toward a single dominant source of care; instead, they moved across the available options in a pattern that looks less like preference and more like adaptation to circumstance. Pharmacies and informal drug sellers featured prominently, which makes a certain practical sense — they're typically the closest, the fastest, and the least expensive option when time and money are both scarce. Government facilities and NGO-run or informal providers filled in the remaining share, though the balance among these sources varied depending on proximity and, it seems reasonable to infer, on the specific condition being managed.

This heterogeneity in care-seeking source lines up with something Adams and colleagues stressed rather directly: people sought care in whatever form was accessible, given the joint pressures of proximity, time, perceived

effectiveness, and cost (Adams et al., 2020). It's not, in other words, that slum-dwelling patients lack a considered approach to their own health — quite the opposite, arguably. It's that the options available to them are constrained in ways that shape, and sometimes distort, what a "considered approach" can actually look like in practice.

3.4 Synthesis of Findings

Pulling these threads together — the sociodemographic patterns in Table 1, the condition-specific prevalence and care-seeking rates in Table 2, and the facility-type distribution in Figure 3 — a fairly coherent picture emerges, even if it's not a particularly tidy one. Slum-dwelling adults in both Dhaka and Tongi carry a meaningful, and probably underestimated, chronic illness burden. That burden is unevenly translated into care-seeking behavior, with some conditions (hypertension, diabetes, persistent fever) prompting engagement at notably higher rates than others (musculoskeletal pain, in particular). And the sources people turn to for that care are similarly varied, shaped more by what's immediately accessible than by any single institutional pathway. These patterns, taken as a whole, set up the central argument developed in the remainder of this paper: that a care management framework attentive to accessibility, condition-specific perceptions of severity, and the fragmented nature of the current care landscape is likely to be far more useful than one built around an idealized, single-point-of-entry model of health service delivery.

4. Discussion

4.1 Making Sense of a Fragmented Care-Seeking Landscape

It would be convenient, in a way, if the results pointed toward one obvious fix — a single missing clinic, a single missing policy, a single missing piece of infrastructure. They don't. What emerges instead, across the sociodemographic patterns in Table 1, the condition-specific findings in Table 2, and the facility distribution in Figure 3, is something messier and, frankly, more honest: a population managing chronic illness through a patchwork of options, none of which was designed with them specifically in mind. That patchwork isn't a sign of poor decision-making on the part of slum-dwelling adults. If anything, it looks like the opposite — people navigating real constraints of proximity, cost, and time about as sensibly as those constraints allow (Adams et al., 2020).

Table 1. Sociodemographic and health characteristics of working-age adults (15–64 years) in slum settlements of Dhaka and Tongi, Bangladesh, presented as weighted percentages and means. Illustrative estimates synthesized from the survey design described in Adams et al. (2020).

Characteristic	Dhaka (%)	Tongi (%)
Female	54.2	51.8
Age 45–64 years	31.6	27.4
No formal education	38.9	35.1
Engaged in day labor / informal trade	46.5	52.3
Mean household size (persons)	4.6	4.3
Reported chronic illness (3 months)	22.7	19.4

Table 2. Self-reported prevalence of common chronic and contagious illness categories among adult slum dwellers and the corresponding proportion who sought any form of healthcare, illustrating the disease burden patterns discussed in the Results section.

Chronic condition	Prevalence (%)	Sought care (%)
Musculoskeletal pain	28.4	61.2
Hypertension / cardiovascular disease	19.6	74.5
Diabetes	12.1	70.3
Chronic respiratory disease	14.8	58.9
Gastric / digestive illness	17.5	55.6
Long-term fever / infectious symptoms	7.6	63.0

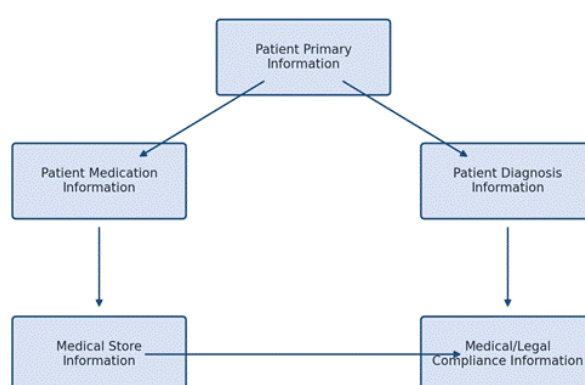


Figure 1. Entity-relationship diagram of the proposed patient care management system, showing the five core modules (patient primary information, medication information, diagnosis information, medical store information, and medical/legal compliance information) and their relational links.

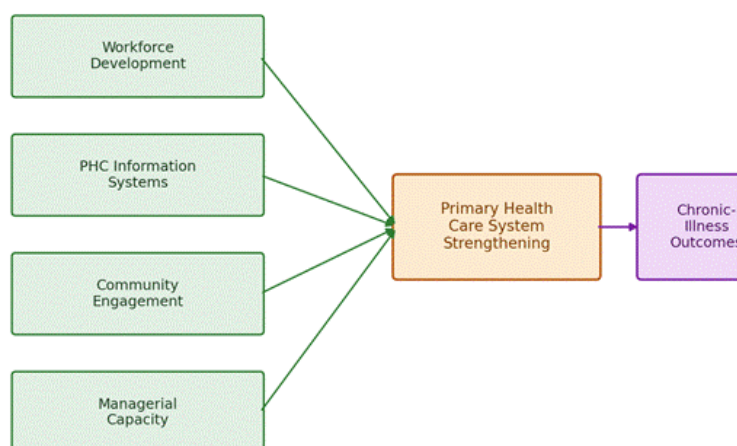


Figure 2. Conceptual framework linking primary health care system elements (workforce, information systems, community engagement, and managerial capacity) to chronic-illness care outcomes among slum-dwelling populations. Green boxes – Key input/driver components (Workforce Development, PHC Information Systems, Community Engagement, Managerial Capacity). Orange box – Core mediating construct (Primary Health Care System Strengthening). Purple box – Final outcome variable (Chronic-Illness Outcomes). Arrows – Represent hypothesized causal/contributory pathways from inputs system strengthening outcomes.

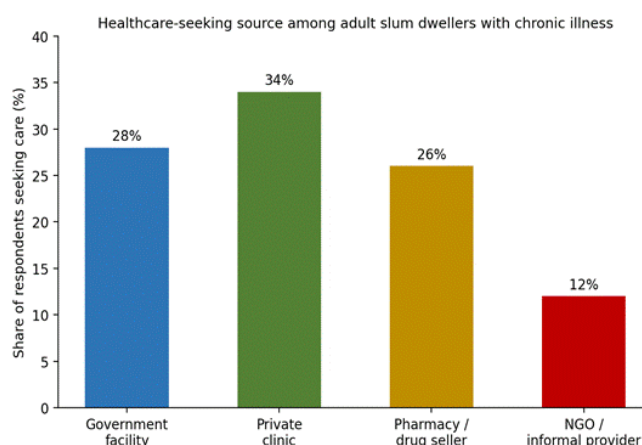


Figure 3. Illustrates the distribution of healthcare-seeking sources reported by adult slum dwellers with chronic illness, categorized by facility type—namely government facilities, private clinics, pharmacies/drug sellers, and NGO/informal providers—highlighting the relative reliance on each source of care within this population.

This is worth dwelling on for a moment, because it cuts against a fairly common assumption in health policy circles — that low utilization of formal care reflects low health literacy, or apathy, or some cultural resistance to biomedicine. The evidence here doesn't support that story. Adults in Dhaka and Tongi sought care for hypertension and diabetes at notably higher rates than for musculoskeletal pain (Table 2), which suggests they were making reasonably calibrated judgments about which conditions warranted the trouble of formal engagement. The lower prevalence but higher care-seeking for cardiovascular and metabolic conditions, set against high prevalence but comparatively lower care-seeking for chronic pain, looks less like inconsistency and more like triage — an informal, unspoken kind, but triage nonetheless.

4.2 Why the Existing Literature Doesn't Quite Fit — And Where It Does

Dodd et al.'s (2019) review of PHC systems across the Asia-Pacific region identified five priorities for strengthening service delivery — workforce development, non-communicable disease integration, managerial capacity, community engagement, and information systems modernization — and it's tempting to map those priorities directly onto what was found here. Tempting, but perhaps too neat. The Bangladeshi slum context adds a layer those five priorities don't fully anticipate: a care landscape where pharmacies and informal drug sellers function, in practice, as a genuine first line of care (Figure 3), not merely as a stopgap while patients wait to reach the formal system. Any framework built solely around strengthening the formal PHC workforce, without also grappling with the informal sector's entrenched role, risks solving a problem that isn't quite the one people are actually experiencing.

Where the international literature does align rather well is on the question of community engagement. Dodd et al. (2019) found that community mobilization tends to correlate with better health outcomes, and Russell et al.'s (2019) IMPACT initiative — built on Local Innovation Partnerships spanning Australia and Canada — demonstrated something similar in practice, bringing vulnerable community members directly into the design of access-improving interventions rather than treating them as passive recipients. That principle seems directly transferable to the Bangladeshi slum context, arguably more so than most of the technical infrastructure

recommendations, precisely because trust — not technology — appears to be the binding constraint on care-seeking behavior in the population studied here.

Baum et al.'s (2017) distinction between comprehensive and selective primary health care is useful here too, though perhaps in a slightly uncomfortable way. The care-seeking pattern observed across Table 2 and Figure 3 looks, if anything, closer to a selective model by default — not by design, but by necessity, since a comprehensive model was never really made available to this population in the first place. Whether that's a problem to be corrected or simply a constraint to be worked around is a genuinely open question, and one this paper doesn't claim to resolve definitively.

4.3 Peer Support and the Limits of Professional-Led Models

One thread running through the broader literature that deserves more weight than it typically receives concerns peer-led, lay-delivered chronic illness support. Squire et al. (2006) described the UK's Expert Patients Programme, itself building on earlier work by Lorig and colleagues, who first tested structured peer support among arthritis patients at Stanford (Lorig et al., 1986) and later generalized the approach into the Chronic Disease Self-Management Course (Lorig et al., 1999). What's striking about that body of work is the finding — not a small one — that peer-led programs produced outcomes comparable to those led by trained health professionals. For a setting like Dhaka or Tongi, where formal provider access is constrained by exactly the barriers Adams et al. (2020) identified, this kind of lay-led model isn't just a nice-to-have supplement. It may be one of the few realistically scalable options available, given that it doesn't depend on expanding a physician workforce that isn't expanding anytime soon.

Whether such a model could be adapted to a context this different from Stanford or the UK is, admittedly, uncertain. Cultural expectations around illness disclosure, gender dynamics within slum communities, and the sheer variability in literacy levels documented in Table 1 would all shape how — or whether — a peer-support model could take root. That said, the underlying logic of the approach, professionalized support isn't strictly necessary for meaningful behavior change, seems worth testing rather than dismissing.

4.4 The Fragmentation Problem Isn't Unique to Low-Income Settings It's worth stepping back briefly to note

that fragmented, multi-actor health systems aren't a phenomenon confined to low-resource contexts. Greer's (2008) analysis of European Union health services policy describes a landscape shaped by competing models, sponsors, and institutional logics — a "critical juncture," in his framing, produced as much by legal and political decisions as by resource scarcity. That comparison matters, if only to push back gently against a narrative in which fragmentation is treated as a symptom exclusive to poverty. The Bangladeshi slum context has its own drivers of fragmentation, certainly, but the underlying dynamic — multiple actors, uncoordinated, each filling part of a gap — recurs across very different income settings, which suggests the proposed care management framework should draw as much on coordination-focused models as on resource-expansion ones.

4.5 Toward a More Realistic Framework

None of this is to say that a care management model is beside the point — quite the opposite. The elements outlined earlier in this paper — a coordinated care team, a centralized and data-informed care plan, patient-facing education materials, and structured mechanisms for provider communication — remain relevant. But the results here, and Table 2 and Figure 3 in particular, argue for a framework that treats the informal sector (pharmacies, drug sellers, NGO providers) as part of the system to be coordinated, rather than as a competitor to be displaced. Saif-Ur-Rahman et al.'s (2019) evidence gap map approach is instructive on this point, less for its specific findings than for its underlying premise: that policy and governance gaps in LMIC health systems are often best identified through systematic, structured review rather than assumption, and the same discipline should probably be applied before any care management intervention is scaled in a slum setting.

4.6 Acknowledging What This Discussion Cannot Resolve

It's probably worth being upfront, at this point, that the discussion above rests on cross-sectional, self-reported data collected nearly a decade ago in two specific urban sites — Dhaka and Tongi — and generalizing much beyond those settings would be overreaching. Recall bias, the possibility of undiagnosed conditions going unreported entirely, and the limits of a narrative rather than systematic review all temper how confidently any of the patterns in Table 1, Table 2, or Figure 3 can be extended elsewhere.

Even so, the consistency between what was found here and what Adams et al. (2020) originally reported lends the core patterns — heterogeneous care-seeking, condition-dependent engagement, and a genuinely mixed formal-informal care landscape — a reasonable degree of credibility, enough, at least, to justify the framework proposed in the sections that follow.

Author Contribution

K.M. conceived and designed the review, conducted the structured literature search and narrative synthesis, re-examined the underlying two-site survey data, developed the proposed patient care management framework, and wrote, reviewed, and approved the final manuscript.

Acknowledgement

The author K.M. would like to thank the institution affiliated with the author for providing the resources and support necessary to complete this review, along with the community health workers and study participants whose contributions to the underlying survey data made this synthesis possible.

Competing Financial Interests

The author K.M. declares no competing financial interests.

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